SYSBPM - Blacklist Maintenance

This function is used to maintain a so-called blacklist of Natural objects which are not to be executed and loaded into the buffer pool or, if they already are in the buffer pool, are to be deleted. If the BP cache is enabled, the objects will also be deleted from the BP cache. The blacklist always applies to the buffer pool currently active.

As described below, on the blacklist you can maintain individual objects and object sets which contain several objects. In an object set, you specify the objects not to be executed and add a single set (instead of multiple individual objects) to the blacklist. You can also combine both: maintain objects individually or by sets. An object set is stored as a Natural object of the type Text.

For details on the blacklist, see the relevant section in Natural Buffer Pool in the Natural Operations for Mainframes documentation.

To invoke Blacklist Maintenance

- On the SYSBPM Main Menu, enter Function Code **B**.
  Or, in the command line, enter BLACKLIST.

  The Blacklist Maintenance menu is displayed.

The functions provided on the Blacklist Maintenance menu are listed and explained below:

- Maintain Blacklist
- List Object Sets
- Edit Object Set
- Add Object Set to Blacklist
- Delete Object Set from Blacklist

Also below is information on:

- Delete Object Set Text Member
- BPMBLBAT - Blacklist Maintenance in Batch Mode.

Maintain Blacklist

This function invokes the Maintain Blacklist screen where you can display and maintain all objects currently available on the blacklist.

To invoke the Maintain Blacklist screen

- On the Blacklist Maintenance menu, enter Function Code **M**.
  Or, in the command line, enter DISPLAY BLACKLIST.

  The Maintain Blacklist screen appears and displays the current blacklist.
  Choose PF7 to scroll one page backward and PF8 to scroll one page forward.

Depending on the mode set when calling the Maintain Blacklist function earlier during a SYSBPM session, the Maintain Blacklist screen appears in Display Mode (default when initializing SYSBPM) or Add Mode. Use PF9 to switch from one mode to the other.

- Adding Objects
- Modifying Objects
- Deleting Objects

Adding Objects

▶ **To add objects to the blacklist**

1. On the Blacklist Maintenance menu, enter Function Code **M**.
   Or, in the command line, enter DISPLAY BLACKLIST.

   The Maintain Blacklist screen is displayed.
2. If required, choose PF9 to switch to Add Mode.
   A screen with empty input fields appears.
3. In the relevant input fields, enter the name of the library where the objects are stored, the names of the objects
   and the corresponding database IDs (DBID) and file numbers (FNR).

   If DBID and FNR are left blank, they will be taken from the current system file FUSER or FNAT in libraries
   whose names start with SYS.
   If you want to clear the Add Mode screen, in the direct command line, enter CLE or CLEAR.
4. Choose PF5 to confirm the addition
   Or, in the command line, enter UP or UPDATE.

   A corresponding message appears.

Modifying Objects

▶ **To modify objects on the blacklist**

1. On the Blacklist Maintenance menu, enter Function Code **M**.

   Or, in the command line, enter DISPLAY BLACKLIST.

   The Maintain Blacklist screen is displayed.

2. If required, choose PF9 to switch to Display Mode and obtain the list of all objects currently on the blacklist.
3. In the relevant input field(s), replace the existing entries with new values.
4. Choose PF5 to confirm the modification.
   Or, in the command line, enter UP or UPDATE.

   A corresponding message appears.

Deleting Objects

▶ **To delete individual objects from the blacklist**

1. On the Blacklist Maintenance menu, enter Function Code **M**.
   Or, in the command line, enter DISPLAY BLACKLIST.

   The Maintain Blacklist screen is displayed.
2. If required, choose PF9 to switch to Display Mode and obtain a list of all objects currently on the blacklist.
3. In Column **C**, next to the object(s) desired, enter Line Command **DE**.
4. Choose ENTER to confirm the deletion.
   A corresponding message appears.

▶ **To delete all objects from the blacklist**

1. On the Blacklist Maintenance menu, enter Function Code **M**.
   Or, in the command line, enter DISPLAY BLACKLIST.

The Maintain Blacklist screen is displayed.

2. Choose PF2.
   The Confirm Delete window is displayed:
     - To execute the deletion, enter Y (Yes).
     - To cancel the deletion:
       Choose PF3 without entering anything in the window,
       Or enter or confirm N (No) which is the default.
3. Choose ENTER to confirm the action. A corresponding message appears.

List Object Sets

This function invokes the List Object Sets screen which displays a list of all existing object sets.

▶ **To invoke the List Object Sets screen**

- On the Blacklist Maintenance menu, enter Function Code **L**, a library name and an object set name. Asterisk (*) notation is also allowed for an object set name.

  Or, in the command line, enter LIST SET *library-name set-name*.
  Asterisk (*) notation is also allowed for *set-name*.

  The List Object Sets screen appears and displays the specified set(s).

You can manipulate an object set from the List Object Sets screen by using any of the line commands provided to modify a set and add it to or delete it from the blacklist. For a list of possible commands, enter a question mark (?) in any of the leftmost screen columns which contain the prefix information.

Edit Object Set

This function invokes the Edit Object Set screen where you can create a new object set, add objects to an existing set or modify them, or delete objects from a set.

The editing functions provided on the Edit Object Set screen are a subset of the functions provided by the Software AG Editor as described in the relevant documentation. To invoke the Help window with a list of the commands available, in the command line, enter a question mark (?). Choose PF7 to scroll backward and PF8 to scroll forward in the window.

For a list of the line commands available, in any of the leftmost columns (prefix information), type in a question mark (?).

Below is information on:

- Creating Object Sets
- Modifying Object Sets

Creating Object Sets

▶ **To create an object set**

- On the Blacklist Maintenance menu:
   - Enter Function Code **E**.
   - Enter the name of a library.
   - Do **not** enter the name of an object set but clear the contents (if any) of the corresponding field.

The Edit Object Set screen is displayed.

- In the relevant input fields, enter the name of the library where the objects are stored, the names of the objects and the corresponding database IDs (DBID) and file numbers (FNR).
  If DBID and FNR are left blank, they will be taken from the current system file FUSER or FNAT in libraries whose names start with SYS.
- In the command line, enter SA *set-name* to save the object set as Natural Text member.

Modifying Object Sets

Below are the functions provided to add an object to an object set, to modify existing objects or to delete them from the set. Note that any of these object set modifications will **not** update the current blacklist.

▶ To add a new object to an object set

- On the Blacklist Maintenance menu, enter Function Code **E**, a library name and an object set name.

  Or, on the List Object Sets screen, in the leftmost column, next to the object set desired, enter Line Command **E**.

  Or, in the command line, enter
  EDIT SET *library-name set-name*.

  The Edit Object Set screen appears and displays the specified object.
- Complete the input fields by entering the name of the library where the objects are stored, the names of the objects and the corresponding database IDs (DBID) and file numbers (FNR).
  If DBID and FNR are left blank, they will be taken from the current system file FUSER or FNAT in libraries whose names start with SYS.
- In the command line, enter SA to save the modification.

▶ To modify an object of an object set

- On the Blacklist Maintenance menu, enter Function Code **E**, a library name and an object set name.

  Or, on the List Object Sets screen, in the leftmost column, next to the object set(s) desired, enter the line command **E**.

  Or, in the command line, enter
  EDIT SET *library-name set-name*.

  The Edit Object Set screen appears and displays the specified object set.
- In the relevant input field(s), replace the existing entries with new values.
- In the command line, enter SA to save the modification.

▶ To delete an object from an object set

- On the Blacklist Maintenance menu, enter Function Code **E**, a library name and an object set name.

  Or, on the List Object Sets screen, in the leftmost column, next to the object set(s) desired, enter Line Command **E**.

  Or, in the command line, enter
  EDIT SET *library-name set-name*.

  The Edit Object Set screen appears and displays the specified object set.
- In the leftmost column, next to the object desired, enter Line Command **D** and choose ENTER.
- In the command line, enter SA to save the modification.

Add Object Set to Blacklist

This function is used to add all objects of an object set to the blacklist.

To add an object set to the blacklist

- On the Blacklist Maintenance menu, enter Function Code **A**, a library name and an object set name.

  Or, on the List Object Sets screen, in the leftmost column, next to the object set(s) desired, enter Line Command **AC**.

  Or, on the Edit Object Set screen, in the command line, enter **AC**.

  Or, in the command line, enter ADD SET *library-name set-name*.

A message appears confirming that the object set was added to the blacklist.

Note:
The command **AC** denotes ACTIVATE which is the equivalent of Add Object Set to Blacklist.

Delete Object Set from Blacklist

This function is used to delete all objects of an object set from the blacklist. Note that the Delete Object Set function will **not** delete the object set as a Natural Text member. The objects of the object set can be added to the blacklist again at any time, as described above. See also To delete an object set Text member below.

To delete an object set from the blacklist

- On the Blacklist Maintenance menu, enter Function Code **D**, a library name and an object set name.

  Or, on the List Object Sets screen, in the leftmost column, next to the object set(s) desired, enter Line Command **DA**.

  Or, on the Edit Object Set screen, in the command line, enter **DA**.

  Or, in the command line, enter
  DELETE SET *library-name set-name*.

A message appears confirming that the object set was deleted from the blacklist.

Note:
The command **DA** denotes DEACTIVATE which is the equivalent of Delete Object Set from Blacklist.

Delete Object Set Text Member

To delete an object set Text member

- On the Blacklist Maintenance menu, enter Function Code **L**, a library name and an object set name.

  Or, in the command line, enter LIST SET *library-name list-name*.

  The List Object Sets screen is displayed.
- In the leftmost column, next to the object desired, enter Line Command **D** and choose ENTER.
  The Delete window appears.
- Confirm the deletion by entering the name of the object set.
  A corresponding confirmation message appears.

Note that the deletion of an object set Text member **will not** update the current blacklist.

BPMBLBAT - Blacklist Maintenance in Batch Mode

Online, you can lock individual objects against being executed by using the Blacklist Maintenance functions as described above.

In batch mode, you do this by using a Natural batch job that uses the program BPMBLBAT in the library SYSBPM.

The program BPMBLBAT is used as follows:

- Start a Natural batch job in the usual way.
- The CMSYNIN file instructs the Natural nucleus to log on to SYSBPM and to execute the program BPMBLBAT.
- The next command from CMSYNIN is the FIN command.
- BPMBLBAT reads the input from the CMOBJIN file, where the first card must be in either of the following two formats:

  Format 1: **FUNC=LOCK, BPNAME=**_name_**, LIB=**_name_**, DBID=**_nnn_**, FNR=**_nnn_

  Format 2: **FUNC=RLS, BPNAME=**_name_

  Format 1 causes objects to be included in the blacklist of the specified buffer pool (BPNAME=_name_). The following cards must contain in Positions 1 to 8 the name of the object to be locked. For each card, an entry is added to the blacklist with the specified object name and the corresponding library name, DBID and FNR. The last card must contain a period (.) to indicate the end of the input.

  Format 2 causes the blacklist to be deleted, which means that no objects are locked in the specified buffer pool.

Example 1:

This JCL is an example of how to lock Programs A, B and C in Buffer Pool V23GBP:

```
//SAGBAT     JOB  ,T.TEST,CLASS=K,MSGCLASS=X,REGION=2048K
//*
//NATURAL    EXEC PGM=NAT220OBT,PARM='IM=D,OBJIN=Y'
//STEPLIB    DD   DSN=OPS.SYSF.TESTNAT.LOAD,DISP=SHR
//          DD   DSN=OPS.SYSF.V5.ADALOD,DISP=SHR
//DDCARD     DD   *
ADARUN PROGRAM=USER,SVC=249,DATABASE=10,MODE=MULTI
//SYSOUT     DD   SYSOUT=X
//SYSUDUMP   DD   SYSOUT=X
//CMSYNIN    DD   *
LOGON SYSBPM
BPMBLBAT
FIN
//CMOBJIN    DD   *
FUNC=LOCK,BPNAME=V23GBP,LIB=SAGTEST,DBID=10,FNR=32
A
B
C
.
//CMPRINT    DD   SYSOUT=X
//
```

Example 2:

This JCL is an example of how to set to **0** (zero) the number of locked entries in Buffer Pool V23GBP:

```
//SAGBAT     JOB  ,T.TEST,CLASS=K,MSGCLASS=X,REGION=2048K
//*
//NATURAL    EXEC PGM=NAT220OBT,PARM='IM=D,OBJIN=Y'
//STEPLIB    DD   DSN=OPS.SYSF.TESTNAT.LOAD,DISP=SHR
//          DD   DSN=OPS.SYSF.V5.ADALOD,DISP=SHR
//DDCARD     DD   *
ADARUN PROGRAM=USER,SVC=249,DATABASE=10,MODE=MULTI
//SYSOUT     DD   SYSOUT=X
//SYSUDUMP   DD   SYSOUT=X
//CMSYNIN    DD   *
LOGON SYSBPM
BPMBLBAT
FIN
//CMOBJIN    DD   *
FUNC=RLS,BPNAME=V23GBP
//CMPRINT    DD   SYSOUT=X
//
```